

DIVISION OF AGRICULTURAL
ENVIRONMENTAL SERVICES
BUREAU OF SCIENTIFIC EVALUATION
AND TECHNICAL ASSISTANCE
(850) 617-7917
(850) 617-7949 FAX



THE CONNER BUILDING, No. 6
3125 CONNER BOULEVARD
TALLAHASSEE, FLORIDA 32399-1650

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
COMMISSIONER NICOLE "NIKKI" FRIED

May 19, 2022

Dr. Eric Bohnenblust, Chief
Minor Use & Emergency Response Branch
U.S. EPA Office of Pesticide Programs
Document Processing Desk (EMEX)
Room S4900, One Potomac Yard
2777 Crystal Drive
Arlington, VA 22202

**SUBJECT: EPA's Additional Information Request for Belay Insecticide (clothianidin;
23.0%)
EPA Reg. No. 59639-150
2022 Use Season – To prevent the transmission of Huanglongbing (HLB)
disease in Florida citrus vectored by the Asian Citrus Psyllid (ACP) in young
bearing citrus trees, 3-5 years old (5-9 feet tall)**

Dear Dr. Bohnenblust:

In response to our March 15, 2022 meeting where the Agency asked for additional information in support of our FIFRA Section 18 Emergency Exemption request for the above subject, we are providing you with the attached letter from Dr. Lauren Diepenbrock, Assistant Professor of Entomology and Citrus Entomology Extension Specialist with the University of Florida's Institute of Food and Agricultural Sciences, Citrus Research and Education Center. This letter supports our original request dated December 3, 2021 and provides answers to your additional questions regarding the state of the citrus industry, use pattern, registered alternatives and why this emergency exemption is still greatly needed by our growers. We appreciate the Agency's time and continued support of our efforts to combat the HLB disease in Florida citrus. If you need any additional information, please contact me or Dr. Rashmi Singh at Rashmi.Singh@FDACS.gov or 850-617-7929.

Sincerely,

Amy N. Brown

Digitally signed by Amy N. Brown
DN: cn=Amy N. Brown, o=FDACS, ou=AES,
email=Amy.Brown@FDACS.gov, c=US
Date: 2022.05.19 10:05:17 -0400

Amy N. Brown
Chief, Bureau of Scientific Evaluation
and Technical Assistance
Amy.Brown@FDACS.gov or 850-617-7913

Dr. Eric Bohnenblust
May 19, 2022
Page Two

Enclosure

cc Ms. Kelly Friend
 Ms. Courtney Frazier
 Dr. James Cooper
 Mr. Michael Aerts
 Dr. Lauren Diepenbrock
 Dr. Rashmi Singh
 Ms. Laura Ritchie



Institute of Food and Agricultural Sciences
Citrus Research and Education Center

700 Experiment Station Road
Lake Alfred, FL 33850-2299
863-956-1151
863-956-4631 Fax
Website: www.crec.ifas.ufl.edu

Thursday, May 16, 2022

To whom it may concern-

I am writing this letter in support of continuing the section 18 label for clothianidin use in Florida citrus. Clothianidin is one of three neonicotinoid insecticides commonly used on newly planted/young citrus trees to delay huanglongbing (HLB) infection. While many insecticides can be used for the management of the vector, Asian citrus psyllid (ACP), only imidacloprid, clothianidin, and thiamethoxam have been proven to interfere with the feeding interaction between ACP and the host plant, citrus, and thereby reduce the likelihood of pathogen transmission. By delaying infection by the pathogen, trees can develop viable roots and potentially survive to develop into productive trees. Infection early in tree development will impair development of roots and reduce the chance of survival for young trees.

One of the concerns regarding clothianidin is that growers perform a "rotation" of 3 neonicotinoid drenches based on research regarding the ability to interfere with feeding. This is not a true rotation, and we have other chemistries including flupyradifurone (Sivanto) and cyantraniliprole (Verimark/cyazypyr) that can be used as drenches. However, neither of these alternative active ingredients have been evaluated for their ability to impede pathogen transmission from the feeding interaction between ACP and citrus trees. Another concern regarding these materials is the likelihood of insecticide resistance occurring from using the same active ingredient. This is a valid concern. However, most new plantings are adjacent to or housed within groves of mature trees which are receiving a true rotation of chemistries 4-6 times per year. The matrix of other chemistries and longer time between applications in mature trees lessens the likelihood of resistance occurring.

Citrus and citrus acreages are being decimated by this disease. According to the most recent NASS Citrus Summary report issued March 2022, there are now only 369,300 bearing acres in commercial plantings for all varieties of citrus in the state of Florida. This compares to a total of 641,400 bearing acres of citrus in the state when HLB was first discovered. As growers plant new citrus trees to try to stop further acreage declines, these newly planted/young citrus trees need a full 12-months of protection from ACP feeding and subsequent HLB infection. Applications of imidacloprid and thiamethoxam work to provide nine months of protection to these young trees, but protection is necessary for the full 12 months. Access to this clothianidin soil drench treatment is necessary therefore, in combination with the other two neonicotinoid insecticides, so as to provide this full 12-month protection. The impacts from clothianidin application continue to be significant, with more than 37,000 of young citrus trees receiving a clothianidin soil drench ACP antifeeding treatment during the previous citrus production cycle.

The request for continuing the section 18 is to support citrus growers and the future of citrus while the research community seeks long term solutions to the now endemic situation of HLB in Florida.

Lauren M. Diepenbrock

Lauren M. Diepenbrock
Assistant Professor of Entomology and Citrus Entomology Extension Specialist
(863) 956-8801 office
ldiepenbrock@ufl.edu